

FIG. 1

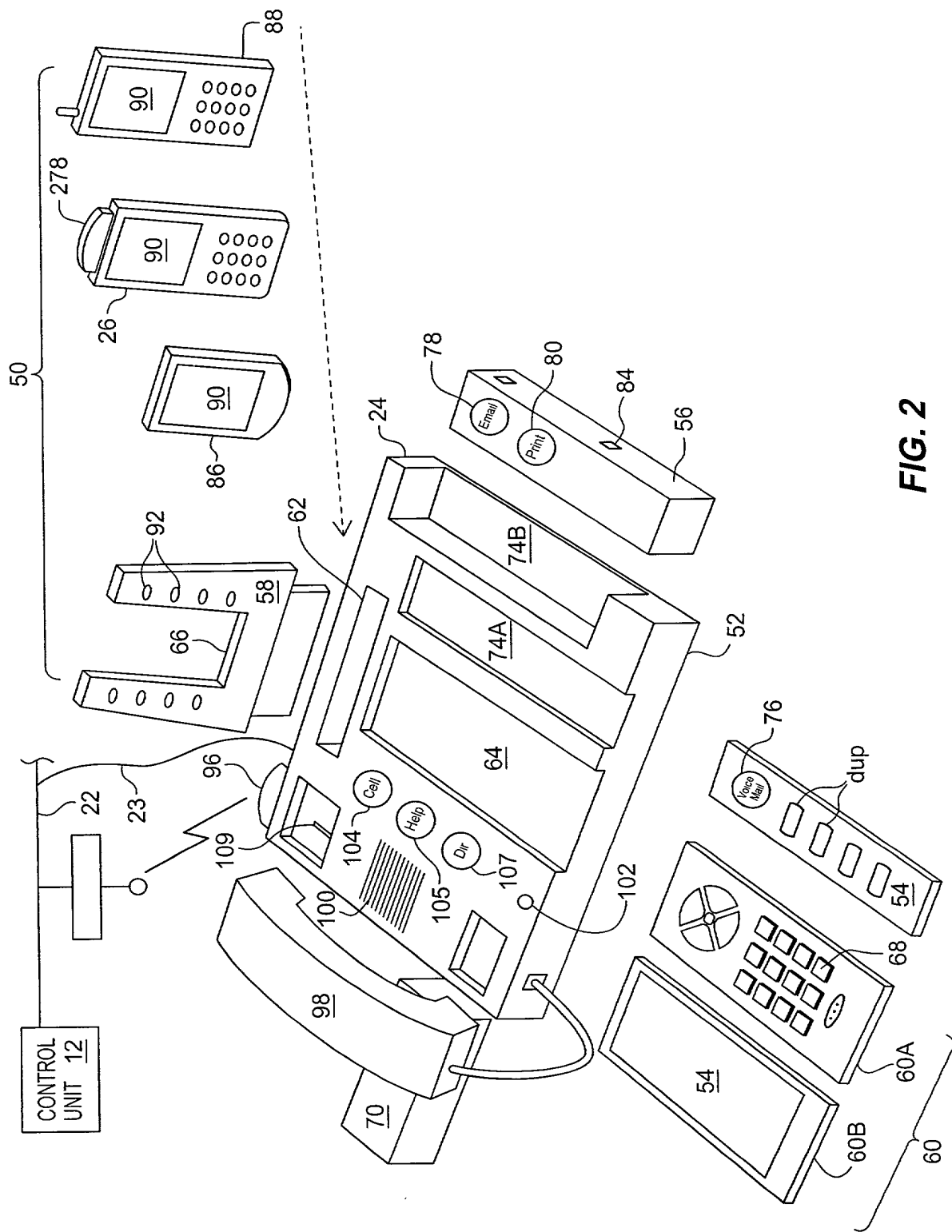


FIG. 2

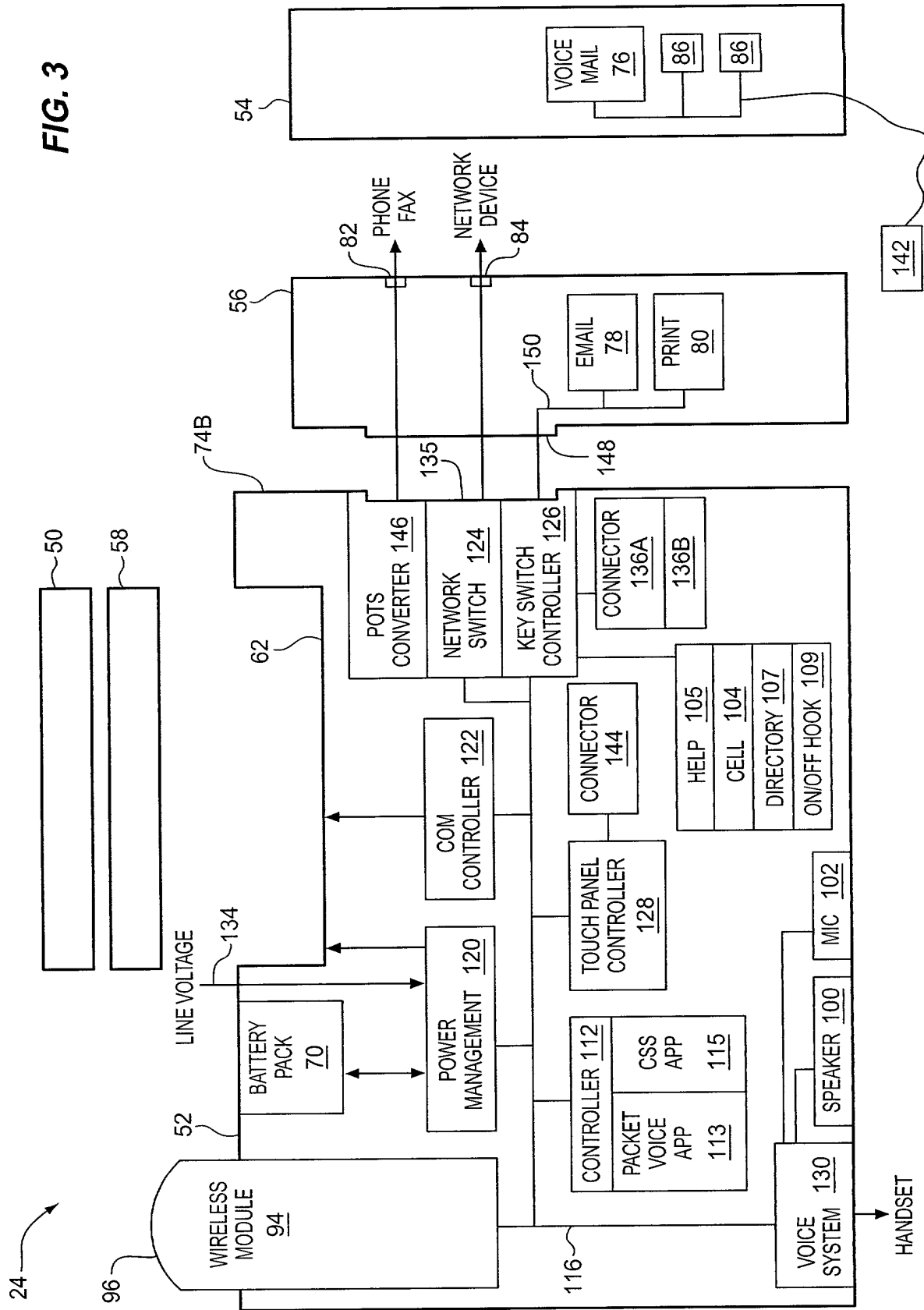
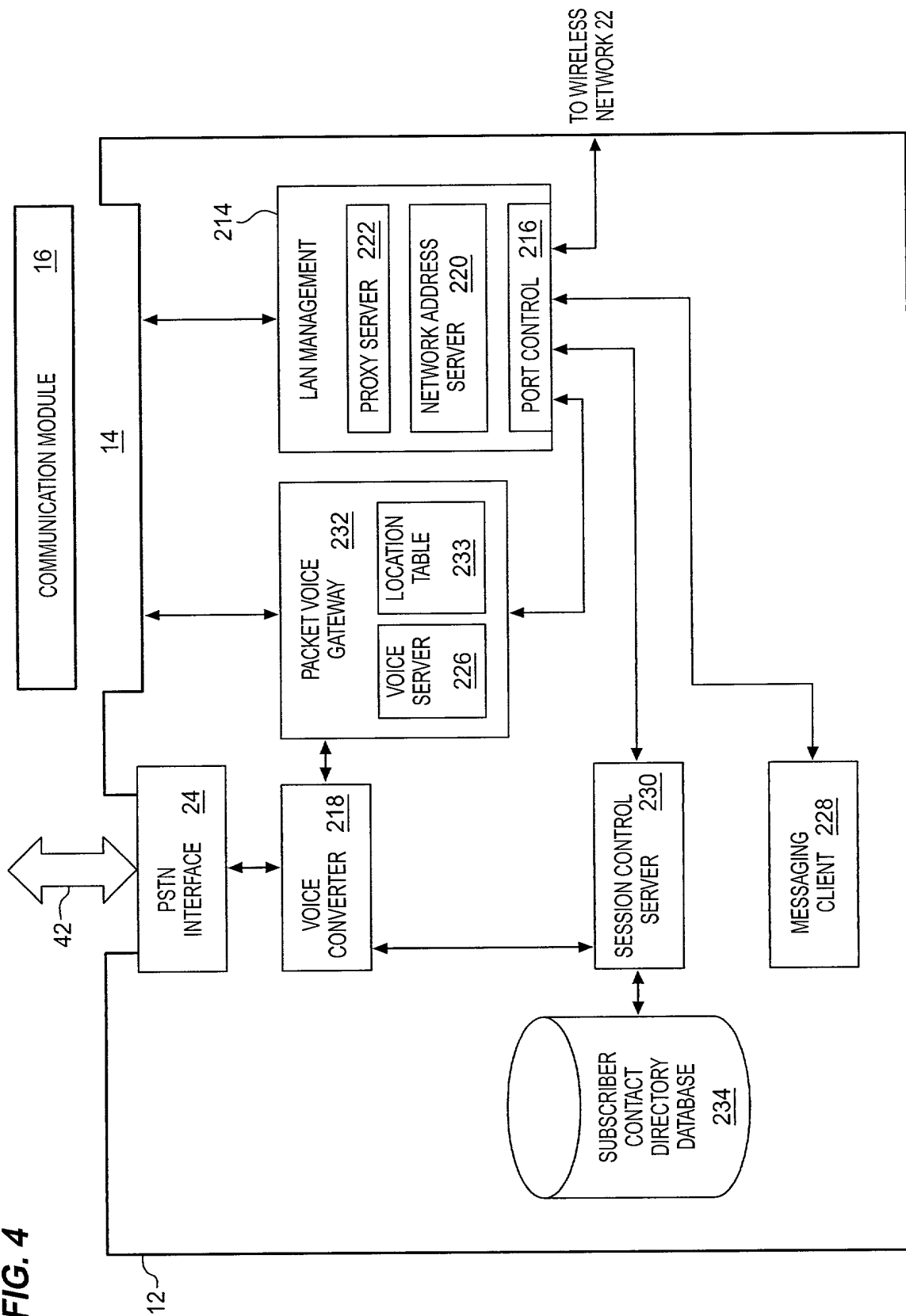


FIG. 4



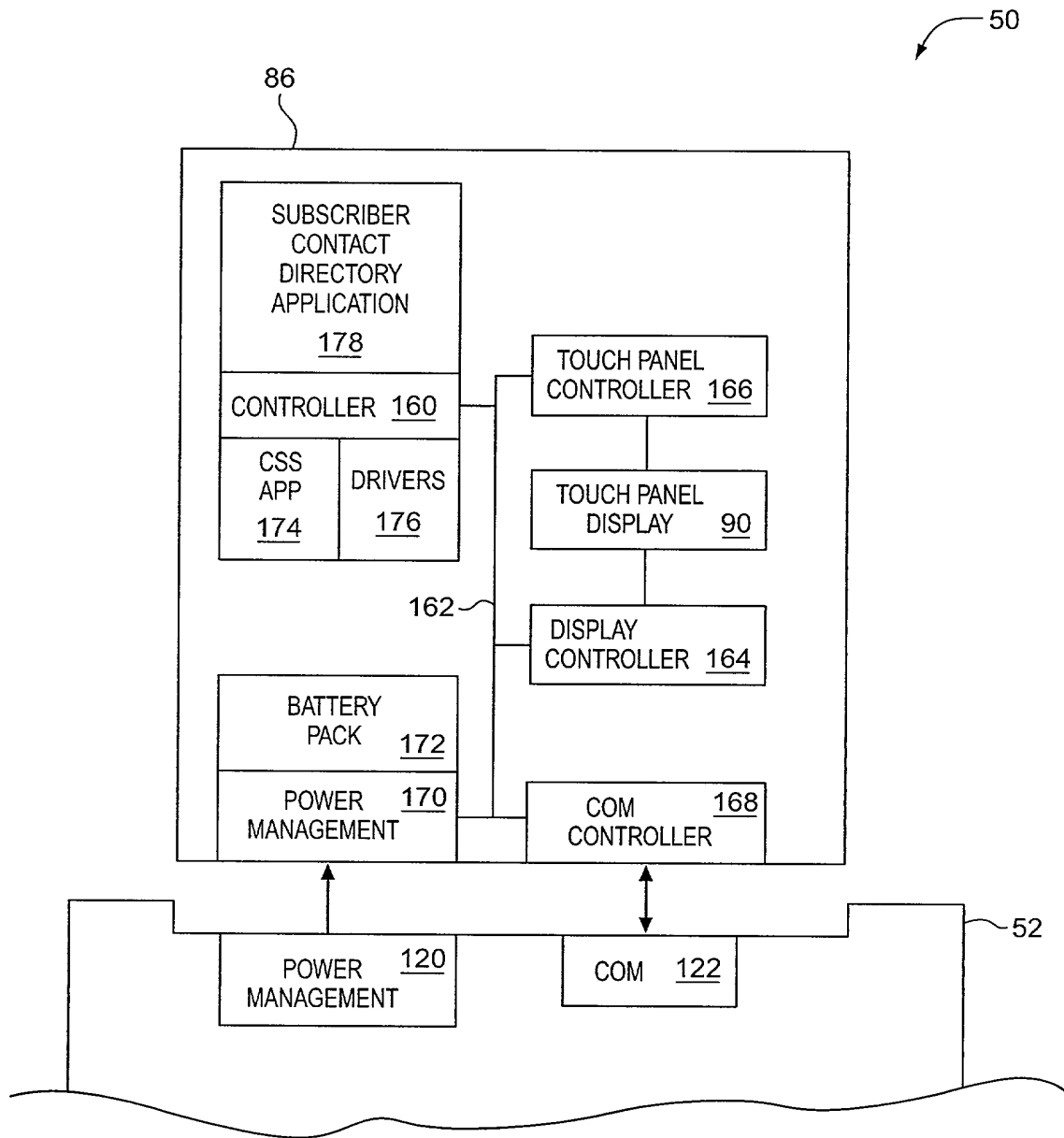


FIG. 5

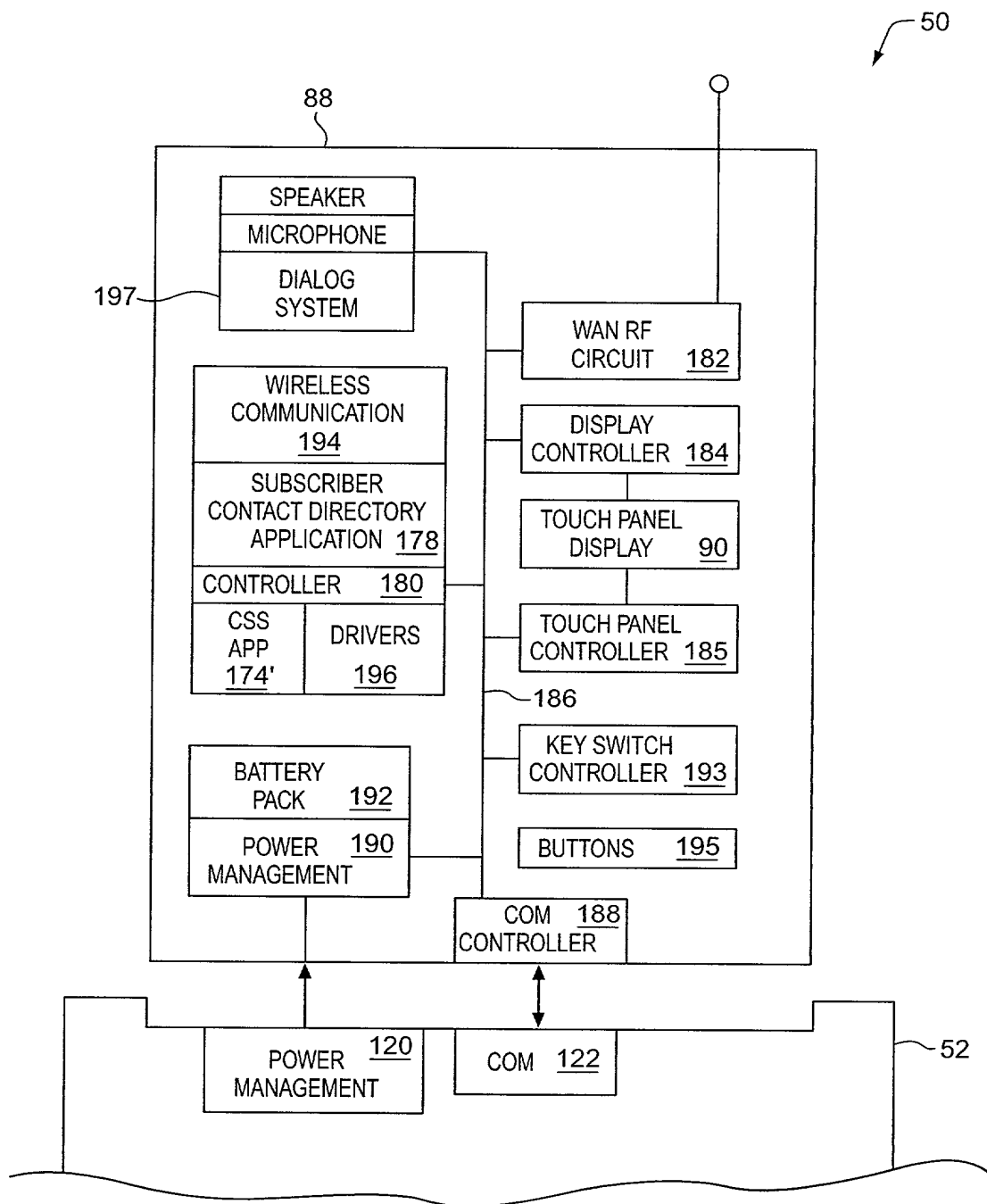


FIG. 6

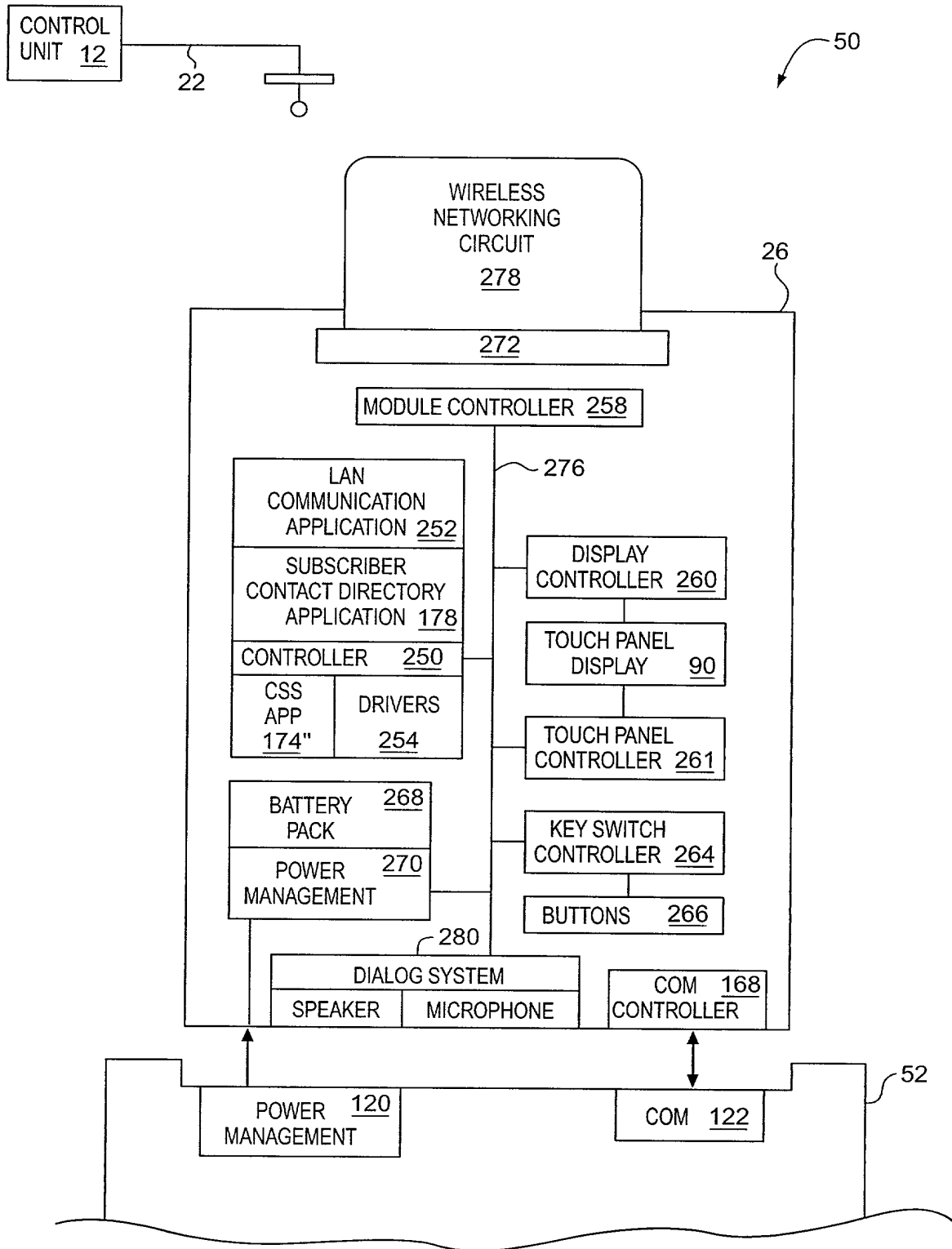


FIG. 7

START UP STATE - WAITING FOR EVENTS	
EVENTS	STEPS
300 OPEN SESSION REQUEST ON PREDETERMINED PORT	<ul style="list-style-type: none"> • ESTABLISH NEW LOCAL COMMUNICATION DEVICE STATE MACHINE • ESTABLISH SESSION • SEND LOGON CONTROL SCRIPTS • GET CSS INTERFACE CONFIGURATION • PROVIDE MAIN MENU DISPLAY CONTENT • PROVIDE MAIN MENU LAYOUT CONTROL • GO TO MAIN MENU STATE

FIG. 8A

MAIN MENU STATE - WAITING FOR EVENTS	
EVENTS	STEPS
302 MENU SELECTION	• GO TO SELECTED STATE
308 INITIALIZE SUBSCRIBER DEVICE	<ul style="list-style-type: none"> • SEND ID EXTRACTION CONTROL SCRIPTS • GET SUBSCRIBER DEVICE ID • UPDATE NETWORK LOCATION TABLE • SYNCHRONIZE SUBSCRIBER CONTACT DIRECTORY • PROVIDE INITIAL DISPLAY CONTENT (MAIN MENU) • PROVIDE DISPLAY LAYOUT CONTROL • GO TO SUBSCRIBER DEVICE MAIN MENU STATE
310 HELP REQUEST	<ul style="list-style-type: none"> • SET UP AUDIO SESSION CHANNEL • TO AUDIO HELP CSS • GO TO AUDIO HELP STATE

FIG. 8B

316		
SUBSCRIBER DEVICE MAIN MENU STATE - WAITING FOR EVENTS		
	EVENTS	STEPS
312	MENU SELECTION	• GO TO SELECTED STATE
320	HELP REQUEST	• PROVIDE HELP MENU DISPLAY CONTENT • PROVIDE HELP MENU DISPLAY LAYOUT CONTROL • GO TO GRAPHIC HELP STATE
322	MESSAGE REQUEST	• GET MESSAGES FROM REMOTE SYSTEM • SORT MESSAGES BY TYPE
324	AUDIO MESSAGE REQUEST	• PROVIDE MESSAGE LIST CONTENT • PROVIDE MESSAGE LIST LAYOUT CONTROL • GO TO MESSAGE LIST STATE
314	DIRECTORY REQUEST	• PROVIDE DIRECTORY CONTENT AND LAYOUT CONTROL • TRANSITION TO SUBSCRIBER DIRECTORY STATE
326	SUBSCRIBER DEVICE REMOVE	• GO TO MAIN MENU STATE

FIG. 8C

328		
MESSAGE LIST STATE - WAITING FOR EVENTS		
	EVENTS	STEPS
334	AUDIO MESSAGE SELECT	<ul style="list-style-type: none"> • SEND AUDIO FILE TO CSS • PROVIDE PROCESSING SCRIPT TO OUTPUT FILE • GO TO AUDIO SESSION STATE
336	MESSAGE SELECT	<ul style="list-style-type: none"> • PROVIDE MESSAGE DISPLAY CONTENT • PROVIDE MESSAGE DISPLAY LAYOUT CONTROL • GO TO MESSAGE DISPLAY STATE
338	MESSAGE PRINT	<ul style="list-style-type: none"> • FORMAT MESSAGE CONTENT FOR PRINTER • SEND MESSAGE FILE TO PRINTER • GO TO MESSAGE LIST STATE
340	HELP REQUEST	<ul style="list-style-type: none"> • PROVIDE HELP MENU DISPLAY CONTENT AND DISPLAY LAYOUT CONTROL • GO TO GRAPHIC HELP STATE
342	SUBSCRIBER DEVICE REMOVE	<ul style="list-style-type: none"> • GO TO MAIN MENU STATE

FIG. 8D

370		
SUBSCRIBER DIRECTORY STATE - WAITING FOR EVENTS		
	EVENTS	STEPS
372	RECEIVE CONTACT SELECTION	<ul style="list-style-type: none"> • PROVIDE CONTROL SCRIPT TO SETUP AUDIO SESSION WITH CONTACT • PROVIDE AUDIO SESSION DISPLAY CONTENT AND LAYOUT CONTROL • TRANSITION TO AUDIO SESSION STATE
374	HELP REQUEST	<ul style="list-style-type: none"> • PROVIDE HELP MENU DISPLAY CONTENT AND DISPLAY LAYOUT CONTROL • GO TO GRAPHIC HELP STATE
378	SUBSCRIBER DEVICE REMOVE	<ul style="list-style-type: none"> • GO TO MAIN MENU STATE

FIG. 8E

344																			
BASE STATE - WAITING FOR EVENTS																			
	<table> <tr> <th>EVENTS</th><th>STEPS</th></tr> <tr> <td>354 TOUCH PANEL</td><td> <ul style="list-style-type: none"> • REPORT TOUCH PANEL EVENT TO CONTROLLER • RETURN TO BASE STATE </td></tr> <tr> <td>356 SUBSCRIBER INTERFACE CONTROL BUTTON</td><td> <ul style="list-style-type: none"> • REPORT BUTTON ACTIVATION TO CONTROLLER AND PVA • RETURN TO BASE STATE </td></tr> <tr> <td>358 RECEIVE DISPLAY CONTENT AND LAYOUT CONTROL MESSAGES</td><td> <ul style="list-style-type: none"> • UPDATE DISPLAY • RETURN TO BASE STATE </td></tr> <tr> <td>360 RECEIVE PROCESSING SCRIPT</td><td> <ul style="list-style-type: none"> • PROCESS SCRIPT • RETURN TO BASE STATE </td></tr> <tr> <td>362 WAN TELEPHONE SIGNAL</td><td> <ul style="list-style-type: none"> • GO TO WAN STATE </td></tr> <tr> <td>364 DETECTED SUBSCRIBER DEVICE</td><td> <ul style="list-style-type: none"> • SEND INITIALIZE SUBSCRIBER MESSAGE • RETURN TO BASE STATE </td></tr> <tr> <td>350 RECEIVE MESSAGES FROM CONTROLLER DIRECTED TO SUBSCRIBER DEVICE</td><td> <ul style="list-style-type: none"> • RELAY MESSAGES TO SUBSCRIBER DEVICE </td></tr> <tr> <td>352 RECEIVE MESSAGES FROM SUBSCRIBER DEVICE DIRECTED TO CONTROLLERS</td><td> <ul style="list-style-type: none"> • RELAY MESSAGES TO CONTROLLER </td></tr> </table>	EVENTS	STEPS	354 TOUCH PANEL	<ul style="list-style-type: none"> • REPORT TOUCH PANEL EVENT TO CONTROLLER • RETURN TO BASE STATE 	356 SUBSCRIBER INTERFACE CONTROL BUTTON	<ul style="list-style-type: none"> • REPORT BUTTON ACTIVATION TO CONTROLLER AND PVA • RETURN TO BASE STATE 	358 RECEIVE DISPLAY CONTENT AND LAYOUT CONTROL MESSAGES	<ul style="list-style-type: none"> • UPDATE DISPLAY • RETURN TO BASE STATE 	360 RECEIVE PROCESSING SCRIPT	<ul style="list-style-type: none"> • PROCESS SCRIPT • RETURN TO BASE STATE 	362 WAN TELEPHONE SIGNAL	<ul style="list-style-type: none"> • GO TO WAN STATE 	364 DETECTED SUBSCRIBER DEVICE	<ul style="list-style-type: none"> • SEND INITIALIZE SUBSCRIBER MESSAGE • RETURN TO BASE STATE 	350 RECEIVE MESSAGES FROM CONTROLLER DIRECTED TO SUBSCRIBER DEVICE	<ul style="list-style-type: none"> • RELAY MESSAGES TO SUBSCRIBER DEVICE 	352 RECEIVE MESSAGES FROM SUBSCRIBER DEVICE DIRECTED TO CONTROLLERS	<ul style="list-style-type: none"> • RELAY MESSAGES TO CONTROLLER
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346																			
START UP - WAITING FOR EVENTS																			
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FIG. 9

380									
STANDBY STATE - WAITING FOR EVENTS									
	<table> <tr> <th>EVENTS</th><th>STEPS</th></tr> <tr> <td>388 AUDIO SESSION SIGNAL FROM PACKET VOICE GATEWAY</td><td> <ul style="list-style-type: none"> • TRANSITION TO CALL SIGNALING STATE • REPORT STATE TRANSITION TO CSS APPLICATION </td></tr> <tr> <td>390 SUBSCRIBER INTERFACE CONTROL (OFF HOOK)</td><td> <ul style="list-style-type: none"> • TRANSITION TO OFF HOOK STATE • REPORT STATE TRANSITION TO CSS APPLICATION </td></tr> <tr> <td>392 SESSION SETUP EVENT FROM CSS APPLICATION</td><td> <ul style="list-style-type: none"> • SEND CALL SIGNALING MESSAGE TO GATEWAY • TRANSITION TO CALL SIGNALING STATE • REPORT TRANSITION TO CSS </td></tr> </table>	EVENTS	STEPS	388 AUDIO SESSION SIGNAL FROM PACKET VOICE GATEWAY	<ul style="list-style-type: none"> • TRANSITION TO CALL SIGNALING STATE • REPORT STATE TRANSITION TO CSS APPLICATION 	390 SUBSCRIBER INTERFACE CONTROL (OFF HOOK)	<ul style="list-style-type: none"> • TRANSITION TO OFF HOOK STATE • REPORT STATE TRANSITION TO CSS APPLICATION 	392 SESSION SETUP EVENT FROM CSS APPLICATION	<ul style="list-style-type: none"> • SEND CALL SIGNALING MESSAGE TO GATEWAY • TRANSITION TO CALL SIGNALING STATE • REPORT TRANSITION TO CSS
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392 SESSION SETUP EVENT FROM CSS APPLICATION	<ul style="list-style-type: none"> • SEND CALL SIGNALING MESSAGE TO GATEWAY • TRANSITION TO CALL SIGNALING STATE • REPORT TRANSITION TO CSS 								

382									
CALL SIGNALING STATE - WAITING FOR EVENTS									
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FIG. 10A

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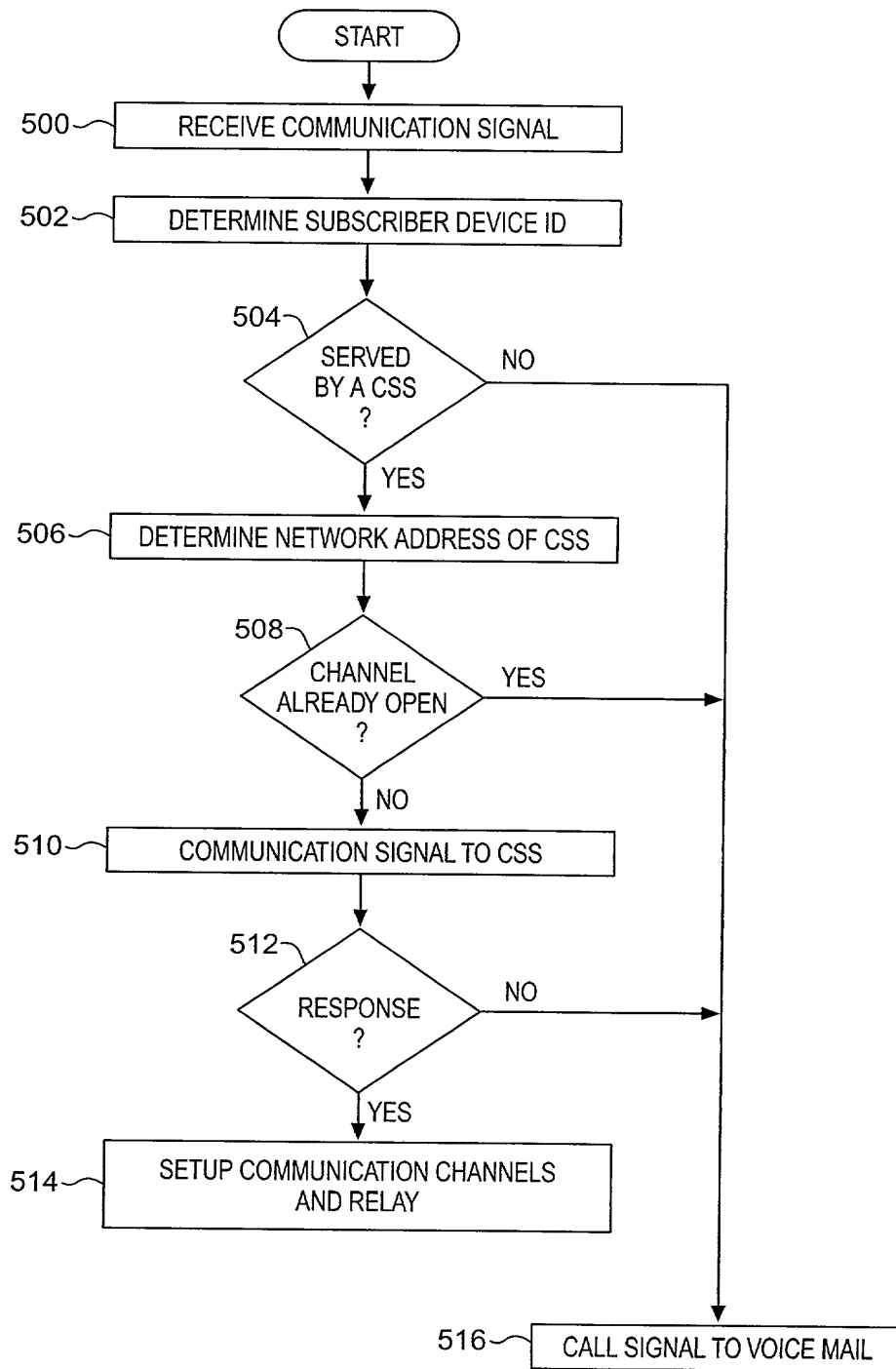
OFF HOOK STATE - WAITING FOR EVENTS	
EVENTS	STEPS
400 SUBSCRIBER INTERFACE CONTROL (KEY PAD ACTIVATION) FROM CSS APPLICATION	• GENERATE DTMF TONE
402 VALIDATION OF NUMBER SEQUENCE	• SEND CALL SIGNALING MESSAGES TO GATEWAY • TRANSITION TO CALL SIGNALING STATE • REPORT TRANSITION TO CSS APPLICATION
404 SUBSCRIBER INTERFACE CONTROL (ON HOOK)	• RETURN TO STANDBY STATE

386

AUDIO SESSION STATE - WAITING FOR EVENTS	
EVENTS	STEPS
406 TERMINATION OF AUDIO SESSION	• RETURN TO OFF HOOK STATE
408 SUBSCRIBER INTERFACE CONTROL (KEY PAD ACTIVATION)	• GENERATE DTMF TONE
410 SUBSCRIBER INTERFACE CONTROL (ON HOOK) FROM CSS APPLICATION	• RETURN TO STANDBY STATE

FIG. 10B

FIG. 11



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SUBSCRIBER IDENTIFIER 237			CURRENT NETWORK LOCATION TABLE	
SUBSCRIBER ID	SUBSCRIBER NAME	SUBSCRIBER DEVICE ID	CURRENT NETWORK ADDRESS	
1234	BOB	001	192.168.abc.xyz	
1235	CHRIS	002	192.168.def.uvw	
1236	MARVIN	003	Open	
.	.	.	.	
.	.	.	.	
.	.	.	.	

FIG. 12